

IN THE SPECIFICATION

Please insert the following heading at page 1, before line 1:

TITLE OF THE INVENTION

Please insert the following heading at page 1, between lines 1 and 2:

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

Please insert the following heading at page 1, between lines 8 and 9:

DISCUSSION OF THE BACKGROUND

Please insert the following heading at page 2, between lines 24 and 25:

SUMMARY OF THE INVENTION

Please insert the following heading at page 5, between lines 1 and 2:

BRIEF DESCRIPTION OF THE DRAWINGS

Please amend the paragraphs on page 5, lines 3-10, as follows:

FIG. 1 is a construction diagram showing an embodiment of the electron gun according to the present invention;

FIG. 2 is a construction diagram of an equipment for evaluating electron emission characteristics; [[and]]

FIG. 3 is a graph showing the relation between an angular intensity and an extractor voltage in the electron gun of the present invention;

FIG. 4 is a construction diagram showing a spherical electron emission surface; and

FIG. 5 is a construction diagram showing a flat electron emission surface.

Please insert the following heading at page 5, between lines 14 and 15:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please amend the paragraph beginning on page 6, line 27, to page 7, line 12, as follows:

Although the shape of the tip of the electron emission cathode is selected depending on a desirable angular intensity and so on, the cathode having a spherical tip as shown in Figure 4 or a flat tip as shown in Figure 5 is preferably selected. The former has a characteristic feature that a higher angular intensity can easily be obtained at an initial stage of operation, and the later has a characteristic feature that a stable angular intensity can easily be obtained for a long term. Accordingly, the selection can be made depending on usage. In order to obtain a desired shape of the tip of the electron emission cathode, well-known machining method, electropolishing method and so on can be used.

Please replace the Abstract on page 16, lines 1-6, with the following: